

STATE OF SOUTH CAROLINA  
BEFORE THE PUBLIC SERVICE COMMISSION

Docket No.: 2020-229-E

Dominion Energy South Carolina, Incorporated's  
Establishment of a Solar Choice Metering Tariff  
Pursuant to S.C. Code Ann. Section 58-40-  
20 (See Docket No. 2019-182-E)

**PARTIAL PROPOSED ORDER OF  
INTERVENOR ALDER ENERGY  
SYSTEMS, LLC**

PREFATORY STATEMENT

Intervenor Alder Energy Systems, LLC files this partial proposed order, pursuant to Commission Order 2021-42-H, entered in this proceeding on April 12, 2021. The proposed order is not intended to be inclusive of all issues presented in the docket, but rather to highlight important portions of the proceeding relative to nonresidential customer-generation. Alder Energy does not intend on filing a more comprehensive proposed order and relies of the content of this writing, unless instructed otherwise by the Commission.

*[content of proposed order follows]*

## I. INTRODUCTION

This matter comes before the Public Service Commission of South Carolina (the “Commission”) under the ‘the Energy Freedom Act’ of 2019 (“A62”). A62 is a comprehensive energy law intended to mature South Carolina’s energy policy, particularly as it relates to utility and customer integration of solar energy. *See* S.C. CODE ANN. § 58-40-20(A)(1).

In this proceeding A62 requires the Commission to establish a ‘solar choice metering tariff’ (“Solar Choice Tariff”) for Dominion Energy South Carolina, Incorporated (“DES”). S.C. CODE ANN. § 58-40-20(F). The Solar Choice Tariff is intended to succeed the net energy metering policies established by ‘the South Carolina Distributed Energy Resource Act’ of 2014 and Commission Order No. 2015-194 (“Existing NEM Policies”). S.C. CODE ANN. §§ 58-40-20(A)(1) and 58-40-20(B).

A62 provides express guidance relative to the Commission’s charge in the docket. In establishing the Solar Choice Tariff, the Commission is directed, explicitly, to:

- (1) “eliminate any cost shift to the greatest extent practicable on customers who do not have customer-sited generation while also ensuring access to customer-generator options for customers who choose to enroll in customer-generator programs; and”
- (2) “permit solar choice customer-generators to use customer-generated energy behind the meter without penalty.”

S.C. CODE ANN. § 58-40-20(G).

The law provides additional directives and guideposts relative to the Solar Choice Tariff. The Commission is required to “determine how meter information is used for . . . [the] metering measurement that is just and reasonable in light of the costs and benefits of the solar choice metering program” and include—within the Solar Choice Tariff—“a methodology to compensate customer-generators for the benefits provided by their generation to the power system.” S.C. CODE ANN. § 58-40-20(F)(1)-(2). In determining the billing mechanism and energy measurement interval, the Commission is mandated to consider: (1) metering capability and the costs of upgrades, (2) “the

interaction of the tariff with time-variant rate schedules,” (3) mitigation measures, and (4) any other relevant information. S.C. CODE ANN. § 58-40-20(F)(3).

Finally, A62 requires the Commission to consider four key principles in executing this mandate: (a) continue enabling market-driven, private investment in DG; (b) reducing regulatory and administrative burden for customer-generation; (c) avoiding disrupting the growing market for DG; and (d) eliminating any cost-shift, to the greatest extent practicable. S.C. CODE ANN. § 58-41-40(A).

Dominion Energy South Carolina, Incorporated (“DES”) appeared in the docket as parties and were represented by the general counsel’s office. Intervenors appeared in the docket as parties with counsel, including:

- Alder Energy Systems, LLC,
- Frank Knapp, Jr.,
- North Carolina Sustainable Energy Association,
- Office of Regulatory Staff,
- South Carolina Department of Consumer Affairs,
- Solar Energy Industries Association,
- South Carolina Coastal Conservation League,
- Southern Alliance for Clean Energy,
- Upstate Forever, and
- Vote Solar.

DESC, various intervenors, and the Office of Regulatory Staff (“ORS”) offered direct and rebuttal testimony and exhibits during the evidentiary hearing that took place from February 23, 2021 through March 2, 2021 (the “Hearing”).<sup>1</sup>

## II. EVIDENCE RELATIVE TO NONRESIDENTIAL CUSTOMER-GENERATION AND DESC’S SMALL GENERAL SERVICE SOLAR CHOICE TARIFF PROPOSED BY DESC

**DESC witness Allen Rooks** (“Rooks”) serves DESC as ‘Manager of Regulation.’ (Tr. 473: 9-12.) Rooks introduced and discussed the particulars of DESC’s proposed Solar Choice Tariff for

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<sup>1</sup> All references to “Tr.” refer to the ‘Scoped Draft’ of the Hearing transcript.

‘Small General Service Customers’ (“DESC’s Small General Service Solar Choice Tariff”). Rooks further identifies the alleged cost shift DESC calculated for nonresidential customers electing not to participate in customer-generation.

DESC’s Small General Service Solar Choice Tariff. Rooks introduced DESC’s Small General Service Solar Choice Tariff. The tariff contains the following components:

- a basic facilities charge of \$32.50,
- a subscription fee equal to \$6.50 per kW of installed capacity (minimum of \$48.75) (the “Subscription Fee”),
- a newly-developed time-of-use rate, and
- hourly netting.

(Hr. Ex. 1.) Rooks clarified that the Subscription Fee is intended, allegedly, to recover the utility’s “transmission-and-distribution fixed system costs.” (Tr. 494:11-15.)

Rooks confirmed DESC’s Small General Service Solar Choice Tariff incorporates several of DESC’s existing rate schedules: Rate 3 [municipal power service], Rate 9 [general service], Rate 10 [small construction service], Rate 11 [irrigation service], Rate 12 [church service], Rate 13 municipal lighting service], Rate 14 [farm service], Rate 16 [time-of-use general service], Rate 22 [school service], and Rate 28 [small general service time-of-use demand]. (Tr. 486:19-20.) Specifically, Rate 9 can encompass, not only commercial businesses like banks and gas stations, but also “large manufacturing facilities” and “industrial facilit[ies] . . . producing chemicals.” (Tr. 486:1-8.) Rooks admits DESC’s Small General Service Solar Choice Tariff captures a “wide swath” of its customers. (Tr. 487:1-4.)

Finally, Rooks does not dispute that Alder Energy has installed large net-metered solar systems for DESC customers on Rate 9, including one for a manufacturing plant with a nameplate capacity of 714 kW DC. (Tr. 487:5-15.)

Cost-shift. Rooks also discussed an alleged cross subsidization and testified that the cost shift of nonresidential customer-generation to nonparticipating customers is equal to 28 cents (\$0.28) per bill. (Tr. 490:6-9.) According to Rooks, the total alleged cross subsidization across the entire class is \$332,880. (Tr. 490:18-20.) Rooks concedes that figure is calculated from the number of nonresidential systems, which is “nowhere near the amount of NEM systems [seen] in the residential class.” (Tr. 490:10-17.) Finally, Rooks acknowledges nonparticipating customers do not suffer any alleged cost shift until there is a general rate case. (Tr. 508:4-15.)

**DESC witness Daniel Kassis** (“Kassis”) serves DESC as ‘General Manager of Strategic Partnerships and Renewable Energy.’ (Tr. 28:3-9.) Kassis confirmed that all nonresidential customers within the rate classes discussed by Rooks (Rates 3, 9-14, 16, 22, and 28) would be subject to DESC’s Small General Service Solar Choice Tariff. (Tr. 37:1-5.) Kassis further did not dispute that Alder Energy sold and installed a near-600 kW behind-the-meter solar asset to a DESC ratepayer taking service under Rate 9. (Tr. 41:9-14.)

As for an alleged cost shift, Kassis admits DESC’s position is that medium and large commercial rate designs accurately capture costs to serve, as is, and therefore do not present a cost-shift concern for purposes of nonresidential customer generation. (Tr. 47:14-25.)

Renewable Energy Credits. Kassis addressed the issue of Renewable Energy Credits (“RECs”) attributable to nonresidential customer-generation. Kassis concedes that any RECs attributable to customer-generation for power consumed behind-the-meter should inure to the customer. Kassis further admits DESC’s Small General Service Solar Choice Tariff does not expressly provide for customer ownership of those RECs. (Tr. 50:10-51:10.)

Advanced Metering Infrastructure. Kassis conceded DESC does not have comprehensive rollout of advanced metering infrastructure (“AMI”) within its service territory and that AMI is required to achieved hourly usage data for its customers. (Tr. 143:16-144:22.)

Interpretation of A62. Lastly, Kassis discussed S.C. CODE ANN. § 58-40-20(G)(1)'s requirement to "ensur[e] access to customer-generator options . . . ." and agreed that ensuring access under A62 requires, in part, "favorable economics for nonresidential NEM customers." (Tr. 73:8-14.)

**DESC witness Scott Robinson** ("Robinson") is employed by 'Guidehouse' as an 'Associate Director' of the company's 'Advanced Solutions Group.' (Tr. 382:3-4.) DESC retained Guidehouse to prepare a market projection for distributed generation ("DG") within DESC's service territory for the time period spanning 2020-2030 under Existing NEM Policies, and under DESC's Small General Service Solar Choice Tariff. (Hr. Ex. 4 p. 1; Tr. 393:7-11.)

Growth Under Existing NEM Policies. Under Existing NEM Policies Robinson projects growth of 69 MW AC of installed capacity, of which only 11.5 MW AC is nonresidential customer-generation (approximately 1 MW per year for ten years). (Hr. Ex. 4 p. 1; Tr. 394:5-11.) According to Robinson, medium and large commercial and industrial nonresidential rate classes will experience "limited" growth over the next ten years, especially relative to small-commercial and other commercial (e.g., nontaxable entities like schools and churches). (Tr. 395:12-17.) Robinson further described the nonresidential customer-generation market in DESC territory as "niche." (Tr. 399:4-8.) Robinson's projections and conclusions contained within Hearing Exhibit No. 4 assume that the Commission keeps status quo Existing NEM Policies through 2030. (Tr. 393:7-11.)

Growth Under DESC's Small General Service Solar Choice Tariff. Robinson forecasts projected DG growth under DESC's Small General Service Solar Choice Tariff and provides three metrics for customer economics: (1) simple payback period, (2) return on investment and (3) customer bill ratio. (Tr. 383:1-4.) For nonresidential customer-generation, Robinson's forecasts show simple payback periods in the range of 5.8 to 8.1 years and return on investment in the range of 13% to 20.1%, depending on the economics of costs and federal tax policies. (Robinson Direct Testi. 14.) These data points are modeled from a 12.5 to 16.5 kW system size, based on "the customers' load profile" and historical sizing. (Tr. 401, 406:1-4.) To that end, Robinson testified that DESC's Small General

Service Solar Choice Tariff is designed to incentivize smaller distributed generation systems. (Tr. 441:21-24.)

Robinson used hourly data to derive his economic conclusions for customer-generation under DESC's Small General Service Solar Choice Tariff and concedes—in order to understand customer economics under DESC's Small General Service Solar Choice Tariff—"you need to know exactly how that customer's use goes over the course of a day, 15 minutes at a time." (Tr. 421:22-422:22.)

**Intervenor witness Thomas Beach** ("Beach") is principal consultant of 'Crossborder Energy' (Tr. 586:12-20) and was retained by some intervenors to, among other things, provide a competing Solar Choice Tariff for residential customers in DESC's service territory (the "Joint Clean Energy Solar Choice Tariff") (Tr. 286, 290.3:4-6). Beach summarized the elements of the Joint Clean Energy Solar Choice Tariff as follows:

- residential customers receive service under DESC's time-of-use Rate 5, following availability of a year of time-of-use data;
- a minimum bill that does not vary with usage; and
- annual netting, with equal credits against on-peak consumption.

(Tr. 588:11-23.)

Beach disagreed with ORS's position that the valuation of the benefits of distributed generation are limited to avoided energy and capacity costs. (Tr. 595:6-9.) That underscores Beach's opinion that the sister Solar Choice Tariff proceeding for Duke Energy Progress, LLC and Duke Energy Carolinas, LLC (collectively, "Duke") was settled, in large part, due to Duke's recognition of "significant avoided transmission-and-distribution benefits from distributed solar." (Tr. 595:21-25.) Beach believes that the Subscription Fee in the DESC's Small General Service Solar Choice Tariff is a penalty because, like ORS, DESC failed to consider avoided transmission-and-distribution benefits from nonresidential customer generation. (Tr. 598:23-599:7, 600:11-19) (emphasis added). Beach

plainly testified his criticisms of the DESC's residential Solar Choice Tariff would apply equally to DESC's Small General Service Solar Choice Tariff. (Tr. 601:18-23.)

**Intervenor Alder Energy witness Donald Zimmerman** ("Zimmerman") is the President and CEO of Alder Energy Systems, LLC and testified on behalf of the company's customers, which are South Carolina businesses that participate in distributed generation. (Tr. 501.) It is undisputed that Alder Energy does not lease customer-generation systems. (Tr. 48.)

Zimmerman testified plainly that, "the nonresidential solar industry will collapse in the DESC territory if the Commission approves [DESC's Small General Service Solar Choice Tariff]." (Tr. 503:1-4.) In that case, Alder Energy would exit DESC's nonresidential customer-generation market entirely. (Tr. 534:5-12.)

Payback Period. Zimmerman testified that payback period is the most useful metric for a customer considering an investment in nonresidential customer-generation (Tr. 503:9-12); that nonresidential customers traditionally will not consider an investment with a payback exceeding eight years; and that nonresidential customers prefer a payback period in the range of four to seven years (Tr. 503:20-25). Alder Energy supported Zimmerman's testimony by admitting into evidence data points reflecting that the company has sold and installed (40) nonresidential distributed systems in DESC territory. (Hr. Ex. 10.) Of those (40) systems, data showed that the average system size proposed and installed by Alder Energy in DESC territory is 90.48 kw DC; the average payback period is 5.45 years. (*Id.*)

Zimmerman's projections for these larger system sizes—the same ones Alder traditionally sells and installs—under DESC's Small General Service Solar Choice Tariff show that payback periods may be "extended many years and, in some cases, *beyond the useful life of the system . . . .*" (Tr. 504:12-15, 546:7-18) (emphasis added). Zimmerman thus believes an unfavorable decision from the Commission (i.e., adoption of the DESC's Small General Service Solar Choice Tariff) is "likely to



elongate the payback period and reduce a system's return on investment, and thereby disrupt or even damage the DG solar market in [DESC territory]." (Tr. 505:20-24.)

RECs. Zimmerman discussed the importance of Alder Energy's customers retaining RECs attributable to their customer-generation because nonresidential ratepayers have economic and social interests in retaining the environmental attributes of customer-generation, often stemming from corporate sustainability goals. (Tr. 504:1-6.)

AMI. Zimmerman noted the importance of hourly data in determining customer economics of a nonresidential customer-generation facility. Specifically, Zimmerman testified that new customers cannot evaluate the economics of a system proposed under DESC's Small General Service Solar Choice Tariff without hourly data from DESC. (Tr. 511:9-25, 512.) A customer's monthly bill is not enough. (Tr. 516:11-13.) According to Zimmerman, Alder Energy cannot "present an accurate representation of what a system can do . . . without hourly data." (Tr. 512:21-25.)

### III. COMBINED FINDINGS OF LAW AND FACT

1. The South Carolina General Assembly passed A62, in part, to ensure ratepayer access to solar energy in South Carolina. *See* S.C. CODE ANN. § 58-41-40(A). A62 requires the Commission to consider four key principles in executing this mandate: (a) continue enabling market-driven, private investment in DG; (b) reducing regulatory and administrative burden for customer-generation; (c) avoiding disrupting the growing market for DG; and (d) eliminating any cost-shift, to the greatest extent practicable. S.C. CODE ANN. § 58-41-40(A). The Commission finds A62 does not direct this Commission to value one of these principles over the other. They shall, instead, balance the other with equal weight.

2. Likewise, the Commission's charge in this proceeding to eliminate any cost-shift to the greatest extent practicable, under S.C. CODE ANN. § 58-40-20(G), is equally balanced by the General Assembly's codified concern for "ensuring access to customer-generator options for customers who choose to enroll in customer-generator programs." S.C. CODE ANN. § 58-40-20(G)(1). The

Commission agrees with DESC witness Kassis: “ensuring access” under A62 requires “favorable economics for nonresidential NEM customers.”

3. Considering this legislative standard and the considerable evidence in this proceeding, the Commission rejects DESC’s Small General Service Solar Choice Tariff. Instead, the Commission approves a Solar Choice Tariff for nonresidential customer-generators as follows:

- nonresidential customer-generators will take service under DESC’s Rate 16 [time-of-use rate general service];
- all excess on-peak kWh shall be rolled over the subsequent months as credits only against subsequent on-peak consumption;
- annual excess net exports will be applied as a bill credit at the same rate as the Commission determines from its order in docket 2019-182-E; and
- the customer-generator shall have all right and title to own and transfer RECs attributable to their generation.

4. This Solar Choice Tariff for nonresidential customer-generators shall not be effective until DESC can demonstrate by competent evidence in this proceeding that 75% of all nonresidential customers in its service territory have had access to hourly usage data (i.e, 8760 data) for a period of twelve months. Until then, all nonresidential customer-generators will take service under their existing rate schedule, with one-to-one net energy metering and annual netting.

5. The nonresidential Solar Choice Tariff approved by this Order reflects several factual findings enumerated below.

- First, DESC’s Small General Service Solar Choice Tariff is penal and thus violates S.C. CODE ANN. § 58-40-20(G)(2). On this point the Commission finds Beach’s testimony persuasive. A Solar Choice Tariff that does not recognize the transmission-and-distribution benefits of nonresidential

customer-generation—and instead, imposes draconian fixed fees in the form of DESC’s Subscription Fee—is penal and does not reduce any alleged cost shift “practicabl[y]” or otherwise. A \$78,000 annual Subscription Fee for a 1 MW solar system does not comply with A62.

- Second, an alleged cost shift of \$332,880 (or 28 cents per bill)—if one exists at all—does not justify disrupting the already “niche” nonresidential distributed-generation market. The Commission finds Robinson’s testimony—that such a market is not sensitive to regulatory change (Tr. 396:14-25)—to be unpersuasive. Instead the Commission relies upon the evidence of an actual market participant, Donald Zimmerman, who testified that approval of DESC’s Small General Service Solar Choice Tariff “will sound the death knell for future nonresidential solar.” (Tr. 504:7-9.) Killing a market to satisfy a supposed 28-cent cost shift is unjustified, generally, and, particularly, in light of the General Assembly’s express intent to continue enabling market-driven, private investment in DG and to avoid disrupting the growing market for DG. S.C. CODE ANN. § 58-41-40(A). The Commission is also mindful that—of the over (230) participants that registered to testify at the public hearings in the docket—not a single one was a nonresidential customer objecting to paying 28 cents per bill. To the contrary, one participant testified that 28 cents per bill was reasonable and prudent to support commercial adoption of customer generation.
- Third, Robinson’s projections for purposes of nonresidential customer-generation under DESC’s Small General Service Solar Choice Tariff are not well taken. Robinson modeled much smaller systems than the ones

traditionally proposed by an actual market participant, Alder Energy. That is concerning considering ample testimony that the customer economics of DESC's Small General Service Solar Choice Tariff incentivize smaller systems. Robinson undersells market disruption by not modeling systems sizes that are consistent with actual systems sizes being installed in the market. The Commission is mindful in this regard to continue enabling market-driven, private investment in DG and to avoid disrupting the growing market for DG. S.C. CODE ANN. § 58-41-40(A).

- Fourth, the Commission is concerned about inconsistent positions taken by DESC in this proceeding relative to various rate schedules that are applicable to DESC's Small General Service Solar Choice Tariff. DESC admits medium and large commercial ratepayers and industrial ratepayers do not pose a cost shift because of rate design appurtenant to those schedules, but also does not dispute that some of those same customers take service under Rate 9. DESC admits some of those customers do not pose a cost shift, but then forces them to bare the economics of an imaginary one.
- Fifth, ORS admits its analysis and recommendations focus exclusively on eliminating any supposed cost shift. ORS's failure to consider the remaining and critical elements of the statute render its opinion moot and irrelevant.
- Sixth, the Commission agrees with ample and compelling testimony that AMI is necessary and critical for customers to examine whether they wish to participate in the Solar Choice Tariff approved in this docket. DESC's inability to provide this information to potential customer-generators could lead to

improvident economic decisions, or worse, and erosion in the confidence in distributed generation to serve important needs to the grid and environment.

6. The principle of judicial economy applies equally to proceedings before this Commission. *See generally Stone v. Thompson*, 426 S.C. 291 (2019). Thus, the Commission highly encourages comprehensive stakeholder engagement prior to DESC's application or appearance before the Commission. The Commission acknowledges it does not regulate the decisions of DESC to conduct stakeholder meetings (unless specifically ordered); however, such engagement tends to promote settlement and can avoid the need for intervention in the electric dockets of the Commission.

BY ORDER OF THE COMMISSION

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Commissioner Justin T. Williams,  
Chairman

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Commissioner Florence P. Belser,  
Vice Chair

April 14, 2021

Greenville, South Carolina

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY on April 14, 2021 the undersigned served the foregoing upon the recipients in the attached service list by electronic mail.

By: /s/ R. Taylor Speer  
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